WHAT IS CLAIMED IS:

 A porphyrin compound represented by general formula (A):

$$R^{1}$$
 N
 N
 N
 N
 R^{4}
 R^{5}
 R^{7}
 R^{7}
 R^{2}
 R^{7}
 R^{7}
 R^{8}

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where R^1 denotes a C_1 - C_{18} alkyloxy group, a C_1 - C_{18} alkylamino group, or a peptide having 1 - 6 α -amino acids and having a hydroxyl group, a benzyl oxy group or a methoxy group at the C-terminal; R^2 denotes a residual group after removal of an amino group and a carboxyl group from an α -amino acid; R^3 denotes a C_1 - C_{18} alkyloxy group, a C_1 - C_{18} alkylamino group, or a peptide having 1 - 6 α -amino acids and having a hydroxyl group, a benzyloxy group or a methoxy group at the C-terminal; each R^4 and each R^5 denote either a methyl group, or a hydrogen atom, a vinyl group, an ethyl group, a 1-methoxyethyl group, a 1-bromoethyl group or a formyl group, wherein, where each R^4 denotes

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a methyl group, each R⁵ denotes a hydrogen atom, a vinyl group, an ethyl group, a 1-methoxyethyl group, 1-bromoethyl group or a formyl group, and where each R⁴ denotes a hydrogen atom, a vinyl group, an ethyl group, a 1-methoxyethyl group, a 1-bromoethyl group or a formyl group, each R⁵ denotes a methyl group; M denotes two hydrogen atoms bonded to the two pyrrole nitrogen atoms or an ion of a transition metal belonging to the fourth to fifth periods in the Periodic Table; X⁻ denotes a halogen ion that is present where M denotes the transition metal ion; and n which denotes the number of X is the number obtained by subtracting 2 from the valency of the transition metal ion.

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- 2. The porphyrin compound according to claim 1, wherein each R^4 denotes a hydrogen atom, a vinyl group, an ethyl group, a 1-methoxy ethyl group, a 1-bromo ethyl group or a formyl group, and each R^5 denotes a methyl group.
- 3. The porphyrin compound according to claim 1, wherein each \mathbb{R}^4 denotes a methyl group, and each \mathbb{R}^5 denotes a vinyl group, an ethyl group, a 1-methoxy ethyl group, a 1-bromo ethyl group or a formyl group.
- 4. The porphyrin compound according to claim 1, wherein M denotes Fe or Co.
- 5. The porphyrin compound according to claim 4, wherein Fe is divalent or trivalent.
 - 6. The porphyrin compound according to claim 4,

wherein Co is divalent.

- 7. A porphyrin metal complex-albumin inclusion compound having the porphyrin compound defined in claim 4 included in albumin.
- 8. An artificial oxygen carrier comprising the porphyrin metal complex-albumin inclusion compound defined in claim 7 as an active component.